

What is claimed is:

1. An HVAC controller comprising:
two switches;
a movable member;
a plurality of detents, wherein the plurality of detents are configured to cause the two switches to be switched in a sequence when the movable member is moved.
2. The HVAC controller according to claim 1 further comprising:
a controller coupled to the two switches for changing an HVAC control parameter based on the sequence that the two switches are switched.
3. The HVAC controller according to claim 1, wherein the two switches include three or more switches.
4. The HVAC controller according to claim 1, wherein the movable member further includes a second plurality of detents configured to engage one or more detent engagement members to selectively fix a position of the movable member at one of a plurality of positions.
5. The HVAC controller according to claim 1, wherein the switches are mechanical switches.
6. The HVAC controller according to claim 1, wherein the switches are optical switches.
7. The HVAC controller according to claim 1, wherein the two switches are positioned such that the plurality of detents activate the two switches out of phase relative to one another.

8. The HVAC controller according to claim 1, wherein the two switches are positioned such that the plurality of detents activate the switches 90 degrees out of phase relative to one another.

9. The HVAC controller according to claim 1, wherein the two switches are positioned such that the plurality of detents activate the switches in one of four possible switch combinations.

10. An HVAC controller, comprising:
a first plurality of detents having a first detent pattern;
a second plurality of detents having a second detent pattern;
a member adapted to move relative to the first and second plurality of detents;
a first detent engagement member fixed relative to the member and adapted to slide along the first plurality of detents to selectively fix the position of the member at one of a plurality of positions; and
a second detent engagement member fixed relative to the member and adapted to effect one or more sensing means that control one or more parameter settings based on the position of the second detent engagement member relative to the second plurality of detents.

11. The HVAC controller according to claim 10, wherein the sensing means include two switches.

12. The HVAC controller according to claim 10, wherein the second detent engagement member includes a plurality of second detent engagement members.

13. The HVAC controller according to claim 10, wherein the first detent engagement member includes a plurality of first detent engagement members.

14. The HVAC controller according to claim 10, wherein the first detent pattern is different than the second detent pattern.

15. An HVAC controller, comprising:
a circuit board having a first detent switch and a second detent switch;
a first detent tab adjacent the first detent switch and a second detent tab adjacent the second detent switch; and
a first detent ring having a plurality of detents, the first detent ring extending in rotational engagement with the first detent tab and the second detent tab;
wherein, rotational movement of the first detent ring relative to the first and second detent tabs, is adapted to selectively deflect the first detent tab to activate the first detent switch and to selectively deflect the second detent tab to activate the second detent switch.

16. The HVAC controller according to claim 15, further comprising a second detent ring extending in rotational engagement with a detent engagement member and adjacent the first detent ring, the second detent ring selectively fixing the position of the first detent ring at one of a plurality of positions.

17. The HVAC controller according to claim 16, wherein the first detent ring has a first detent pattern, the second detent ring has a second detent pattern, wherein the first detent pattern is different than the second detent pattern.

18. An HVAC controller, comprising:
a controller housing having a front surface;
a display on the front surface having a switchable backlight; and
a hinged backlight button on the front surface of the controller, wherein the hinged backlight button operates the backlight.

19. The HVAC controller according to claim 18, wherein the backlight button is hinged to the controller housing.

20. The HVAC controller according to claim 18, wherein the backlight button includes a backlight button post extending away from the backlight button and into the controller housing.

21. The HVAC controller according to claim 20, wherein the backlight button post is spaced away from the backlight button hinge.

22. The HVAC controller according to claim 18, wherein the backlight button forms a portion of the controller housing front surface.

23. The HVAC controller according to claim 18, wherein the backlight button is generally co-planar with the controller housing front surface.

24. An HVAC controller, comprising:
a controller housing;
a display fixed relative to the controller housing having a switchable backlight, the display defined by a display perimeter and having a display surface area; and
a backlight button defined by a backlight button perimeter and having a backlight button surface area, wherein the backlight button surface area is equal to or greater than the display surface area.

25. The HVAC controller according to claim 24, wherein the backlight button surface area is 10% greater than the display surface area.

26. The HVAC controller according to claim 24, wherein the backlight button surface area is 20% greater than the display surface area.

27. The HVAC controller according to claim 24, wherein the backlight button is hinged to the controller housing.

28. The HVAC controller according to claim 24, wherein the backlight button forms a portion of the controller housing.

29. The HVAC controller according to claim 24, wherein the backlight button is generally co-planar with the controller housing.

30. An HVAC controller, comprising:
a controller outer housing defined by a housing perimeter and having a cross-sectional outer housing surface area;
a display having a switchable backlight; and
a backlight button defined by a backlight button perimeter and having a backlight button cross-sectional surface area, wherein the backlight button cross-sectional surface area is at least 2.5% of the outer housing cross-sectional surface area.

31. The HVAC controller according to claim 30, wherein the backlight button cross-sectional surface area is 5% of the outer housing cross-sectional surface area.

32. The HVAC controller according to claim 30, wherein the backlight button cross-sectional surface area is 10% of the outer housing cross-sectional surface area.

33. The HVAC controller according to claim 30, wherein the backlight button cross-sectional surface area is 12.5% of the outer housing cross-sectional surface area.

34. The HVAC controller according to claim 30, wherein the backlight button is hinged to the controller outer housing.

35. The HVAC controller according to claim 30, wherein the backlight button forms a portion of the controller outer housing.

36. The HVAC controller according to claim 30, wherein the backlight button is generally co-planar with the controller outer housing.

37. An HVAC controller, comprising:
a controller outer housing;
a display fixed relative to the controller outer housing having a switchable backlight; and
a backlight button forming a portion of the controller outer housing.

38. The HVAC controller according to claim 37, wherein the backlight button is hinged to the controller outer housing.

39. The HVAC controller according to claim 37, wherein the backlight button is generally co-planar with the controller outer housing.

40. A backlight assembly, comprising:
a circuit board;
a display comprising a display panel on a display holder, and a light source capable of illuminating the display panel, the display holder having a slot, wherein one or more light source leads of the light source extend into the slot; and
a zebra strip disposed within the slot and configured to electrically connect the one or more light source leads to the circuit board.

41. The backlight assembly according to claim 40, wherein the light source is disposed within the display panel.

42. A thermostat, comprising:
a first circuit board extending along a first plane; and
a second circuit board extending along a second plane, having a sensor mounted thereon, the second circuit board adapted to be mounted to the first circuit board such that the first circuit board and the second circuit board intersect.

43. The thermostat according to claim 42, wherein the first circuit board interlocks with the second circuit board.

44. The thermostat according to claim 42, wherein the first circuit board is orthogonal with the second circuit board.

45. The thermostat according to claim 42, wherein the sensor is a temperature sensor.

46. The thermostat according to claim 42, wherein the sensor is a humidity sensor.

47. The thermostat according to claim 42, wherein the sensor is a gas sensor.

48. A method of adjusting an HVAC controller having a display and rotatable interface member, comprising the step of:

displaying a first parameter on an HVAC controller display;

rotating a rotatable interface member on the HVAC controller, wherein the rotating causes the display to display a second parameter.

49. The method according to claim 90, further comprising rotating the rotatable interface member to adjust the displayed second parameter.

50. The method according to claim 49, wherein the step of rotating the rotatable interface member to adjust the displayed second parameter comprises rotating the rotatable interface member in a first direction to increase the value of the displayed second parameter or rotating the rotatable interface member in a second direction opposite the first direction to decrease the value of the displayed second parameter.

51. The method according to claim 48, wherein the rotating comprises rotating the rotatable interface member having a plurality of detent positions to a first detent position.

52. The method according to claim 51, wherein the rotating comprises rotating the rotatable interface member having a plurality of detent positions to a second detent position which is further than the first detent position.

53. The method according to claim 49, wherein the rotating comprises rotating the rotatable interface member to adjust the displayed second parameter an amount proportional to the distance the rotatable interface member is rotated.

54. An HVAC controller, comprising:
a controller housing having a front surface;
a display on the front surface; and
a movable interface member disposed about the display and forming a portion of the controller housing front surface, wherein the movable member is movable relative to the display.

55. The HVAC controller according to claim 54, wherein the movable interface member is annular in shape.

56. The HVAC controller according to claim 54, wherein the movable interface member is removable from the HVAC controller.

57. The HVAC controller according to claim 54, wherein the movable interface member is rotatable about the display.

58. The HVAC controller according to claim 54, wherein the movable interface member is rotatable over a plurality of detents.

59. The HVAC controller according to claim 54, wherein the movable interface member is formed of a rigid thermoplastic material.

60. The HVAC controller according to claim 54, wherein the movable interface member has a smooth front surface.

61. An HVAC controller, comprising:
a controller housing having a front surface with a central region;
a movable interface member disposed around at least part of the central region of the front face and forming part of the front surface of the controller housing; and
the movable interface member is adapted to move relative to the central region of the front face.

62. An HVAC controller, comprising:
a controller having a number parameters;
a movable interface member having a hole extending therethrough, the movable interface member adapted to rotate relative to the controller to control one or more of the parameters of the controller; and
a portion of the controller extending at least partially into the hole in the movable interface member.

63. An HVAC controller according to claim 62 wherein the portion that extends at least partially into the hole in the movable interface member includes a user interface that is visible to a user of the HVAC controller.

64. An HVAC controller according to claim 63 wherein the user interface includes a button.

65. An HVAC controller according to claim 63 wherein the user interface includes a screen.

66. An HVAC controller according to claim 63 wherein the user interface includes a temperature indicator.